

THE SWEETLAND CHUCK.

THIS CHUCK IS

Universal,
Eccentric,
Independent,
Comprehensive.

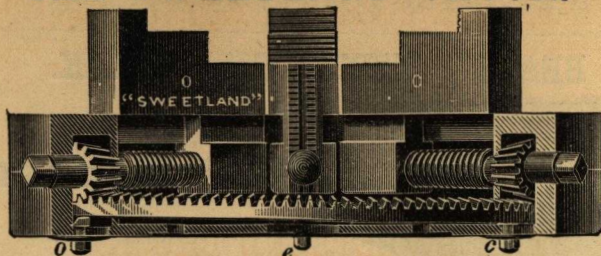


Fig. 1. COMMON JAW.

UNEXCELLED FOR

Strength,
Accuracy,
Durability,
Simplicity.

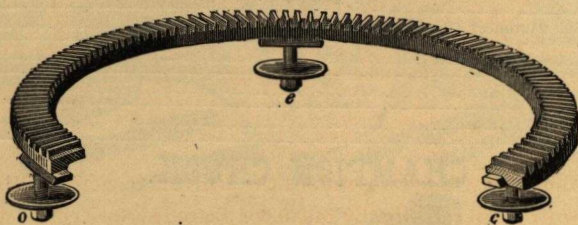


Fig. 2. CIRCULAR RACK.

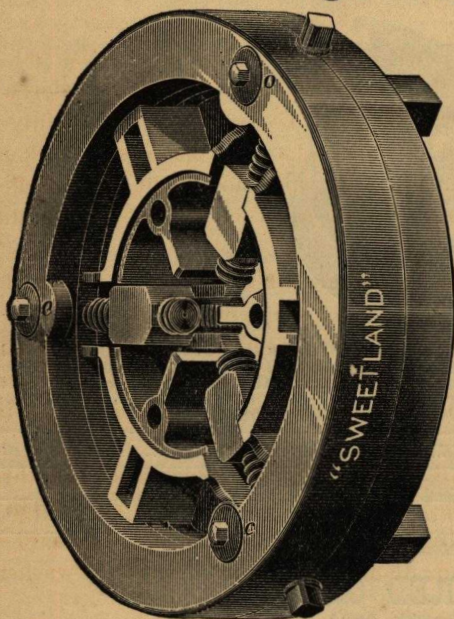


Fig. 3. BACK VIEW.

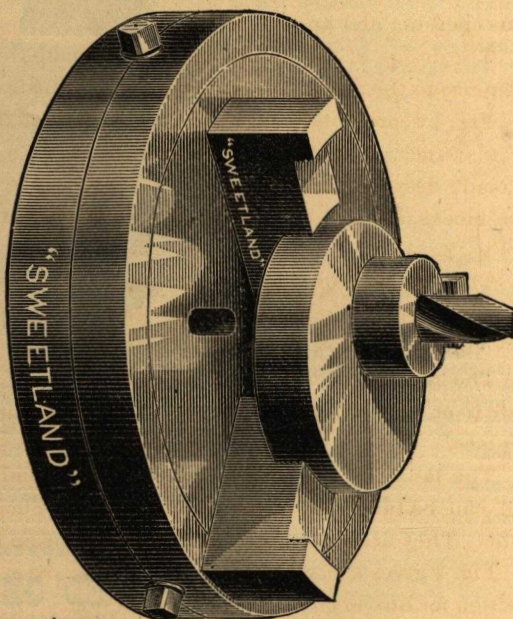


Fig. 4. FRONT VIEW.

PRICE LIST.

THREE JAWS.

Diameter.	Price.
4 inch,	\$22.00
6 "	26.00
9 "	34.00
12 "	44.00
15 "	52.00
18 "	62.00
21 "	80.00
24 "	100.00
30 "	170.00
36 "	220.00
Car Wheels,	250.00

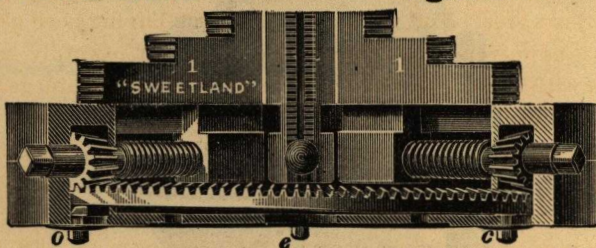


Fig. 5. No. 1, Or REVERSE JAW.

PRICE LIST.

FOUR JAWS.

Diameter.	Price.
6 inch,	\$32.00
9 "	42.00
12 "	56.00
15 "	64.00
18 "	75.00
21 "	95.00
24 "	120.00
30 "	200.00

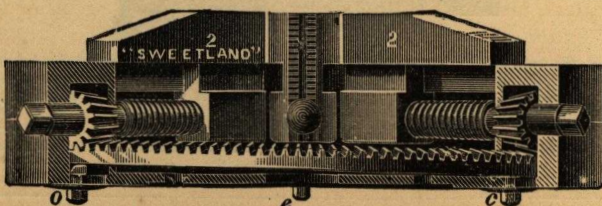


Fig. 6. No. 2, Or INSIDE JAW.

THE SWEETLAND CHUCK.

[Patented February 4th, 1879.]

In general construction this Chuck resembles the Universal Screw Chuck, the jaws being moved to and from the centre, universally, by means of geared screws connected with the circular rack which revolves in a recess in the back plate. The front and back plates are bolted together, thus encasing and protecting the gearing.

The design of the improvement is to make the Chuck independent as well as universal, and reference to the accompanying engravings illustrate the means employed to attain this object.

Fig. 1 represents the entire mechanism of the SWEETLAND CHUCK, showing plainly the circular rack and pinion screws, connected at *o* and disconnected at *c*. The recess in back plate is made deep enough to disconnect the gearing. In the recess, and underneath the rack, lie the cam blocks, beveled to correspond with the continuous bevel recess in the back of rack, as shown in Fig. 2.

These bevel cam blocks have radial motion, and when moved to the outer portion of the recess and rack they connect the gearing, making the Chuck universal; and when they are moved inward, allow the rack to disengage from the pinion, thus making each screw independent.

The cam blocks are held in place by the convex spring washers, *o*, *e*, *c*, which allow them to slide to or from the centre without disturbing the nuts, the friction being sufficient to hold them in place.

The jaws have a long bite on the inner end, are strong in the nut which has a full thread, and can be taken out of the Chuck, for the purpose of cleaning, without removing it from the lathe. They are ground perfectly true on face and bite, also outer end, after being case-hardened.

Fig. 3 gives a back view of all Chucks over 9 in. diameter, showing the spring washer in position for universal or independent action.

Fig. 4 gives a front view of the Chuck holding an eccentric. The line on face is designed as a guide for setting the jaws true. For instance, the Chuck having been used independent, the operator wishing to use it as universal, the jaws would be moved inwardly, so that the outer end would be perfectly even with the line on face; now engage the rack into gear with the pinions by sliding the spring washers outward, and the Chuck is ready for universal work, and perfectly true. This Chuck has a large hole in centre, and will allow a drill or reamer to pass through work without injury.

Fig. 5 represents the style known as the No. 1, or reverse jaw. This Chuck is used for holding drills, screws, pipes, etc., and is very convenient for this class of work, also for hand-tool work, brass finishing, etc.

Fig. 6 represents style No. 2, or inside jaw, and is the Chuck commonly used on screw machines, universal millers, also for holding drills, reamers, dies, or other tools desirable to be held firmly and true.

These Chucks will be furnished without the combination when so ordered, and when thus supplied will be universal only. They will be known as the "HORTON STYLE."